

CLAIMS

What is claimed is:

1. A method for trading in gas, said method providing:
obtaining storage rights to at least a portion of one or more shallow depth underground salt formation storage facilities operating at pressures averaging 20 to 80 bars;
making short term trades related to gas; and
selectively utilizing said one or more shallow depth underground salt formation storage facilities by receiving gas into or providing gas out of said one or more shallow depth underground salt formation storage facilities.
2. The method of Claim 1, wherein said short term is less than 24 hours.
3. The method of Claim 2, wherein said short term is less than 12 hours.
4. The method of Claim 3, wherein said short term is less than 6 hours.
5. The method of Claim 4, wherein said short term is less than one hour.
6. The method of Claim 5, wherein said short term is less than thirty minutes.
7. The method of Claim 1, further comprising selectively utilizing said one or more shallow depth underground salt formation storage facilities to supply or take gas from a gas pipeline.

8. The method of Claim 1, further comprising selectively utilizing at least one compressor unit to supply or take gas from a gas pipeline.
9. The method of Claim 8, further comprising providing said at least one compressor unit with multiple compressors per rotor.
10. The method of Claim 9, wherein at least one said compressor unit is selectively capable of multiple modes of operation.
11. The method of Claim 10, wherein said at least one compressor unit is computer controllable.
12. The method of Claim 10, wherein the multiple modes of operation include at least series and parallel modes of operation.
13. The method of Claim 1 wherein the shallow depth gas salt formation storage facility provides a salt storage positioned with a top depth of about 800 to about 1200 feet.
14. A system operable for use in short term trading in gas, said system comprising:
 - at least one shallow depth underground salt formation storage facility;
 - access to a trading system operable for making trades related to gas; and
 - a gas facility computer system operable for controlling gas flow into and out of said at least one shallow depth underground salt formation storage facility on a short term basis.

15. The system of Claim 14, further comprising:
at least one compressor capable of operation in multiple modes, said at least one compressor being controllable by said gas facility computer system.
16. The system of Claim 14, wherein a top of said at least one shallow depth underground salt formation storage facility is at a depth of between about 400 feet to about 1200 feet.
17. The system of Claim 14 wherein a bottom of said at least one shallow depth underground salt formation storage facility is at a depth of between about 800 feet to about 2500 feet.
18. The system of Claim 14, wherein said at least one compressor comprises a rotor with multiple compressors.
19. The system of Claim 18, wherein said multiple compressors are configurable in by said facility computer system.
20. The system of Claim 19, wherein said multiple compressors are selectively configurable in one or more parallel modes and one or more series modes and one or more series parallel modes.
21. The system of Claim 14, wherein said at least one shallow depth underground salt formation storage facility is operated at a pressure in the range of from one-fourth to one and one-fourth of a standard gas pipeline pressure.
22. The system of Claim 14, wherein said at least one shallow depth underground salt formation storage facility is normally operated at a pressure in the range of from 20 to 80 bar.

23. The system of Claim 14, wherein said at least one shallow depth underground salt formation storage facility comprises a plurality of shallow depth underground salt formation storage facilities, said plurality of shallow depth underground salt formation storage facilities being controllable by said gas facility computer systems to effect a net inflow or a net outflow of gas from said plurality of shallow depth underground salt formation storage facilities.

24. A method of using a gas storage facility for short term trading purposes, said method comprising:

providing one or more gas storage facilities each having at least a portion of gas storage at about 800 to about 1200 feet below a surface;

connecting one or more gas pipelines to said one or more gas storage facilities;

selectively pumping gas into or out of said one or more gas storage facilities responsively to short term gas market conditions within less than twenty four hours.

25. The method of Claim 24, wherein said responding is within less than 12 hours.

26. The method of Claim 24, wherein said responding is within less than 6 hours.

27. The method of Claim 24, wherein said responding is within less than 1 hour.

28. The method of Claim 24, wherein said responding is within less than 30 minutes.

29. The method of Claim 24, wherein said responding is within less than five minutes.

30. The method of Claim 24, further comprising providing said gas storage facilities comprise a salt formation.

31. The method of Claim 24, further comprising operating multiple compressors each capable of operation in multiple modes.

32. The method of Claim 31, programming a computer for said operating of said multiple compressors.

33. The method of Claim 24, further comprising maintaining a pressure in said gas storage facility in the range of from one-fourth to one and one-fifth of a standard gas pipeline pressure.

34. The method of Claim 24, further comprising maintaining a pressure in said gas storage facility in the range of from 20 to 80 bars.

35. An underground gas storage facility operable for short term changes between injection and withdrawal, said system comprising:

at least one shallow depth underground salt formation storage facility;

a gas facility computer system operable for controlling gas flow into and out of said at least one shallow depth underground salt formation storage facility on a short term basis; and

at least one compressor capable of operation in multiple modes, said at least one compressor being controllable by said gas facility computer system.

36. The system of Claim 35, wherein a top of said at least one shallow depth underground salt formation storage facility is at a depth of between about 400 feet to about 1200 feet.

37. The system of Claim 35 wherein a bottom of said at least one shallow depth underground salt formation storage facility is at a depth of between about 800 feet to about 2500 feet.

38. The system of Claim 35, wherein said at least one compressor comprises a rotor with multiple compressors.

39. The system of Claim 38, wherein said multiple compressors are configurable in by said facility computer system.

40. The system of Claim 39, wherein said multiple compressors are selectively configurable in one or more parallel modes and one or more series modes and one or more series parallel modes.

41. The system of Claim 35, wherein said at least one shallow depth underground salt formation storage facility is operated at a pressure in the range of from one-fourth to one and one-fourth of a standard gas pipeline pressure.